

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: William M. Woodard, Warren M. Ewert, Harvey D. Hensley,
Mark E. Lashier, Bruce E. Kreischer, Glyndal D. Cowan,
Jeffrey W. Freeman, Ralph V. Franklin, Ronald D. Knudsen,
Richard L. Anderson and Lyle R. Kallenbach

For: OLEFIN PRODUCTION PROCESS

LETTER

Honorable Commissioner of Patents and Trademarks
Washington, D. C. 20231

Attached hereto for filing in the United States Patent and Trademark Office is the
patent application identified above. This application includes 6 sheet(s) of drawings.

The filing fee has been computed as follows:

Basic Fee	\$770.00
Additional Fees:	
Total number of claims (whether independent or dependent) over 20, times \$22.00	\$000.00
Number of independent claims over 3, times \$80.00	\$000.00
Multiple Dependent Claims (\$260)	\$000.00
Total Filing Fee	\$770.00

Please charge Deposit Account 16-1575 in the amount of the total filing fee stated
above. The Commissioner is hereby authorized to charge any additional fees which may be
required under 37 C.F.R. 1.16 or 37 C.F.R. 1.17, or credit any overpayment, to Deposit Account
16-1575, but is not authorized to charge any fee provided for under 37 C.F.R. 1.18. Three copies
of this paper are enclosed.

If the Examiner wishes to contact representatives of record concerning the accompanying application prior to the first Official Action, such contact should be made with the undersigned.

The following items, a copy of each is attached, are called to the Examiner's attention:

U.S. 4,777,315 (Levine et al., 10/11/88) - discloses a trimerization catalyst system using carbon dioxide. The patent also does not disclose or suggest a trimerization process in the presence of a catalyst system comprising a chromium source, a pyrrole-containing compound, a non-hydrolyzed aluminum alkyl and optionally a halide source, as disclosed and claimed in the presently pending application.

EP 0 611 743 B1 (Aoshima et al., 7/2/97) - discloses olefin oligomerization and production of 1-hexene from ethylene. The patent does not disclose or suggest a trimerization process as disclosed and claimed in the presently pending application.

The present invention is a patentable improvement over the following items in the recitation of an olefin trimerization process in a reactor with at least one inlet line in said reactor for olefin reactant and catalyst system, effluent lines from said reactor from trimerization products and at least said one separator to separate desired trimerization reaction products, wherein said catalyst system comprises a chromium source, a pyrrole-containing compound, a metal alkyl and optionally a halide source.

U.S. 5,198,563 (Reagen et al., 3/30/93)

U.S. 5,288,823 (Reagen et al., 3/22/94)

U.S. 5,331,104 (Reagen et al., 7/19/94)

U.S. 5,376,612 (Reagen et al., 12/27/94)

U.S. 5,470,926 (Reagen et al., 11/28/95)

U.S. 5,523,507 (Reagen et al., 6/4/96)

U.S. 5,451,645 (Reagen et al., 9/19/95)

U.S. 5,543,375 (Lashier et al., 8/6/96)

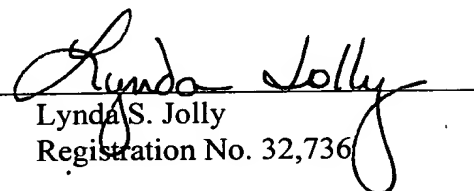
U.S. 5,563,312 (Knudsen, et al., 10/8/96)

The following item also is called to the Examiner's attention:

U.S. S.N. 08/573,655 (Lashier et al., filed 12/18/95, allowed 5/12/97)

Respectfully submitted,

RICHMOND, HITCHCOCK,
FISH & DOLLAR

By 
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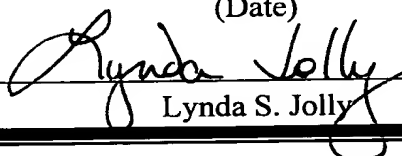
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October 14, 1997

(Date)


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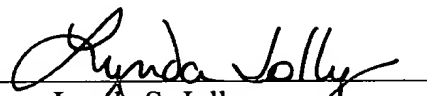
Sir:

I hereby certify that this application is being deposited with the United States
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Washington, D.C. 20231.

Respectfully submitted,

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